

# **NS 102**      **Lecture 6**      **April 14, 2005**

Opening song: *Losing my Religion* (REM)

Closing song: *Jupiter* (Jewel)



**The Trial of Galileo, Robert Fleury, Musée du Louvre**

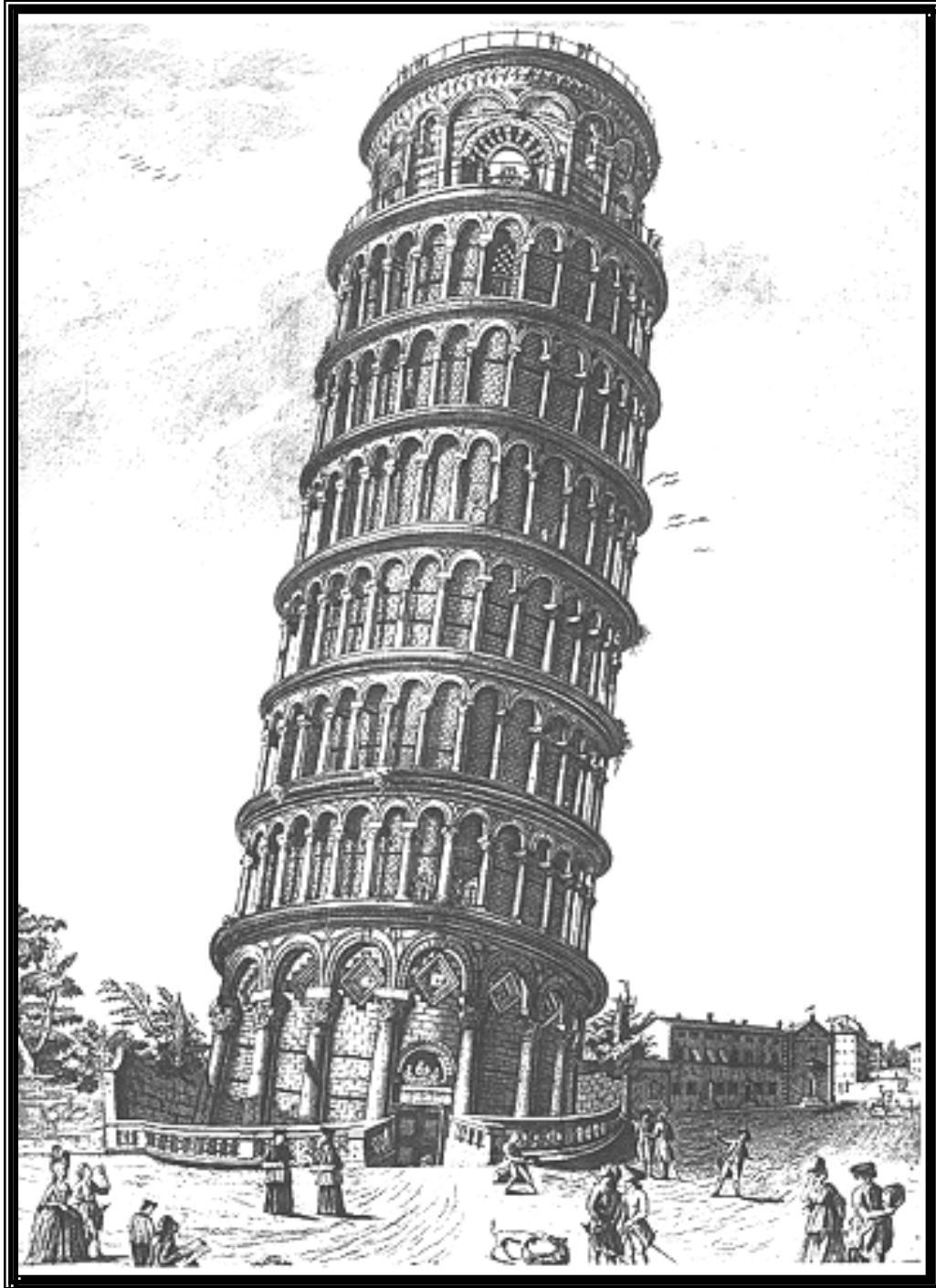
# **GnatSigh News**

## **(all the news that fits)**

### **Exam #1 Thursday April 21**

- Readings (Kolb, Chapters 1-5)
- Class lectures
- Class images (website)
- Website <http://home.fnal.gov/~rocky/NS102/>
- Dialog Concerning Two Chief World Systems (website)
- Laboratory work (Moons of Jupiter)
- Little (if any) mathematics this time

**Lab next week: Temperature of the Universe**

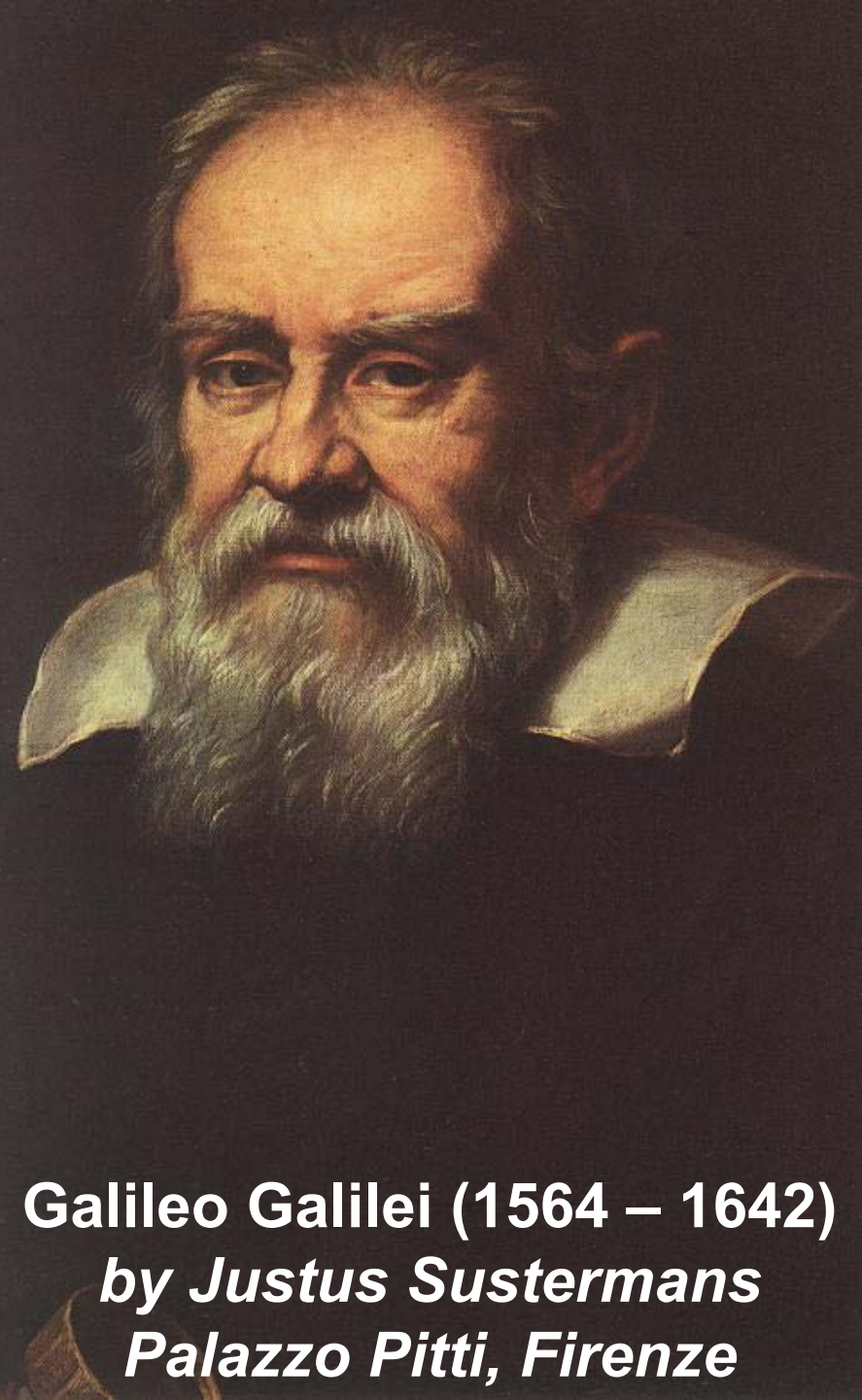




# **The Greatest Book!**

**Philosophy is written in this grand book, the universe, which stands continually open to our gaze. But the book cannot be understood unless one first learns to comprehend the language and read the letters in which it is composed. It is written in the language of mathematics, ....**

***Il Saggiatore***



**Galileo Galilei (1564 – 1642)  
by Justus Sustermans  
Palazzo Pitti, Firenze**

- 1. The sun is the center of the world [solar system or universe] and altogether immovable in local motion.**
- 2. Earth is not the center of the world and not immovable, but moves as a whole and also with diurnal motion [spins on its axis].**



**Maffeo Barberini  
(1568 - 1644)**

**Urban VIII  
(1623 - 1644)**

**Caravaggio 1599  
Private Collection, Firenze**

# DIALOGO

DI

GALILEO GALILEI LINCEO

MATEMATICO SOPRAORDINARIO

DELLO STUDIO DI PISA.

*E Filosofo, e Matematico primario del*

SERENISSIMO

GR.DVCA DI TOSCANA.

Doue ne i congressi di quattro giornate si discorre  
sopra i due

MASSIMI SISTEMI DEL MONDO

TOLEMAICO, E COPERNICANO.

*Proponehdo indetèrminatamente le ragioni Filosofiche, et Naturali  
tanto per l'una, quanto per l'altra parte.*

CON PRI



VILEGI.

IN FIRENZA, Per Gio:Batista Landini MDCXXXII.

CON LICENZA DE' SUPERIORI.

Imprimatur si videbatur Reuerendiss. P. Magistro Sacri  
Palatij Apostolici.

A. Episcopus Bellicastensis Vicesgerens.

Imprimatur

Fr. Nicolaus Riccardius

Sacri Palatij Apostolici Magister.

*Imprimatur Florentia ordinibus consuetis seruatis.*

*11. Septembris 1630.*

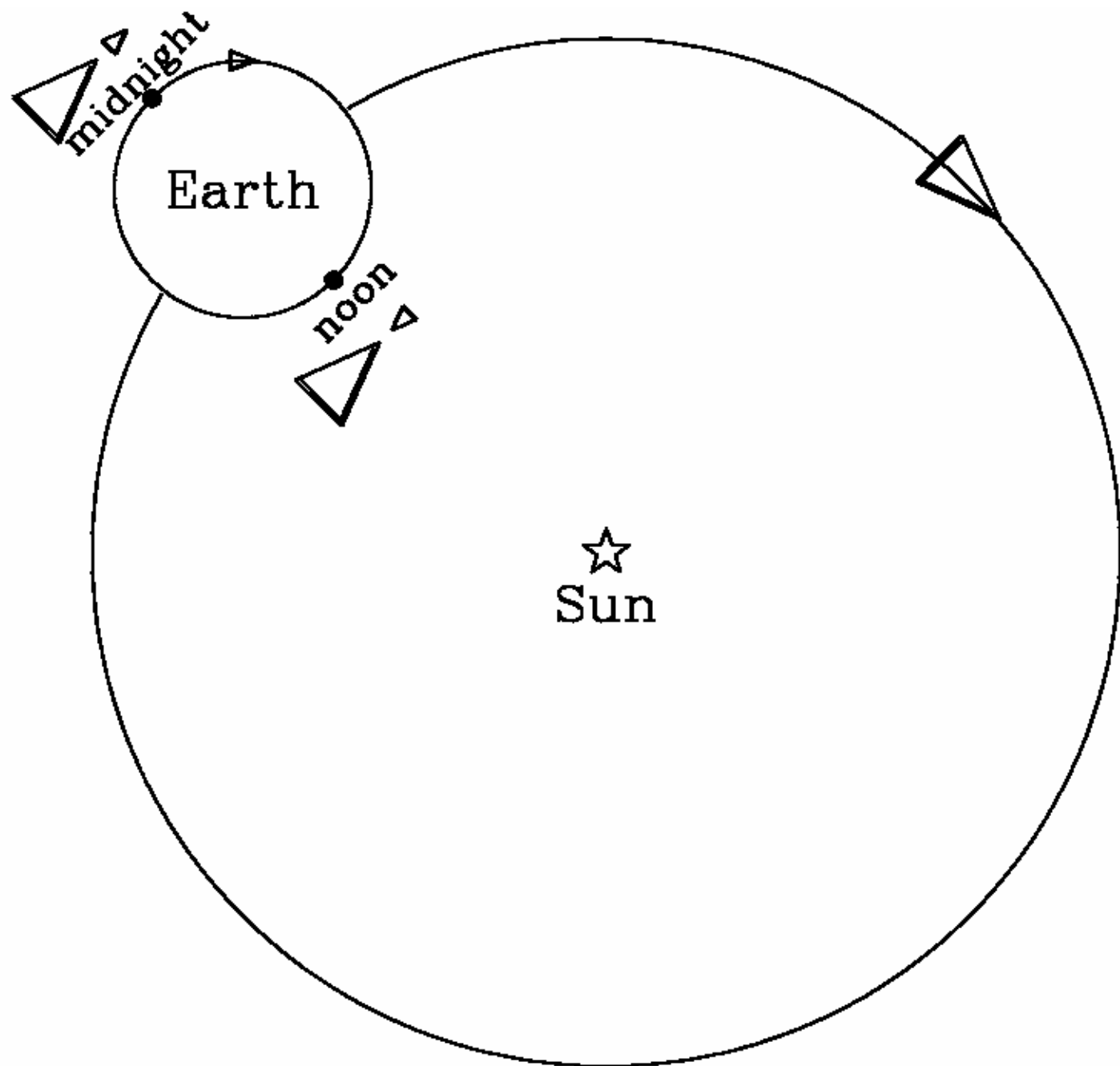
*Petrus Nicolinus Vic. Gener. Florentia.*

*Imprimatur die 11. Septembris 1630.*

*Fr. Clemens Egidius Inqu. Gener. Florentia.*

*Stampato il 12. di Settembre 1630.*

*Niccolò dell'Altella.*





**Take note, theologians, that in your desire to make matters of faith out of propositions relating to the fixity of the Sun and Earth you run the risk of eventually having to condemn as heretics those who would declare the Earth to stand still and the Sun to change position---eventually, I say, at such a time as it might be physically or logically proved that the Earth moves and the Sun stands still.**

*Note added by Galileo  
in the preliminary leaves of  
his own copy of The Dialogue.*

# ***From the dedication of the Dialogue:***

**Most Serene Grand Duke:**

**Though the difference between man and the other animals is enormous, yet one might reasonably say that it is little less than the difference among men themselves. ....**

**I believe the constitution of the universe may be set in first place among all natural things that can be known, for coming before all others in grandeur by reason of its universal content, it must also stand above them all in nobility as their rule and standard. ....**

**... that I once heard from a most eminent and learned person, and before which one must fall silent. I know that if asked whether God in his infinite power and wisdom could have conferred upon the watery element its observed reciprocating motion using some other means than moving its containing vessels, both of you would reply that He could have, and He would have known how to do this in many ways which are unthinkable to our minds. From this I forthwith conclude that, this being so, it would be excessive boldness for anyone to limit and restrict the Divine power and wisdom to some particular fancy of his own.**

I do not feel obliged to believe that the same God who has endowed us with sense, reason, and intellect has intended us to forego their use.

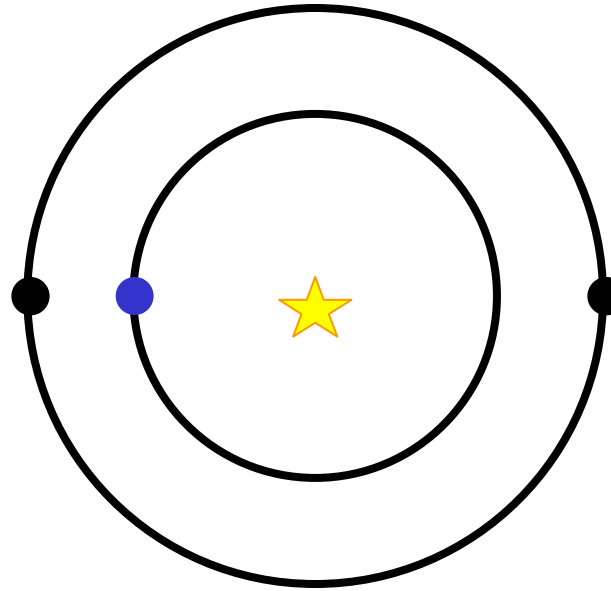
*Galileo*

# Opposition and Conjunction

**superior planet**

**opposition**

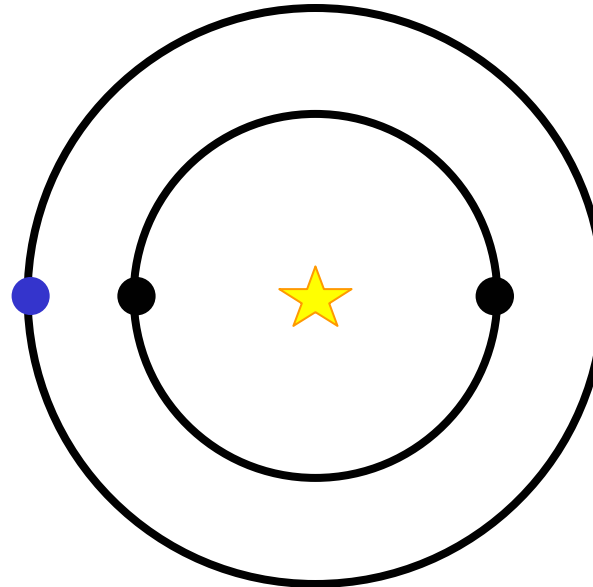
**conjunction**



**inferior planet**

**inferior  
conjunction**

**superior  
conjunction**





**Rocky Kolb-GnatSigh  
Productions  
Presents**

***The Dialogue Concerning the  
Two Chief World Systems***

★ **April 14, 2005** ★

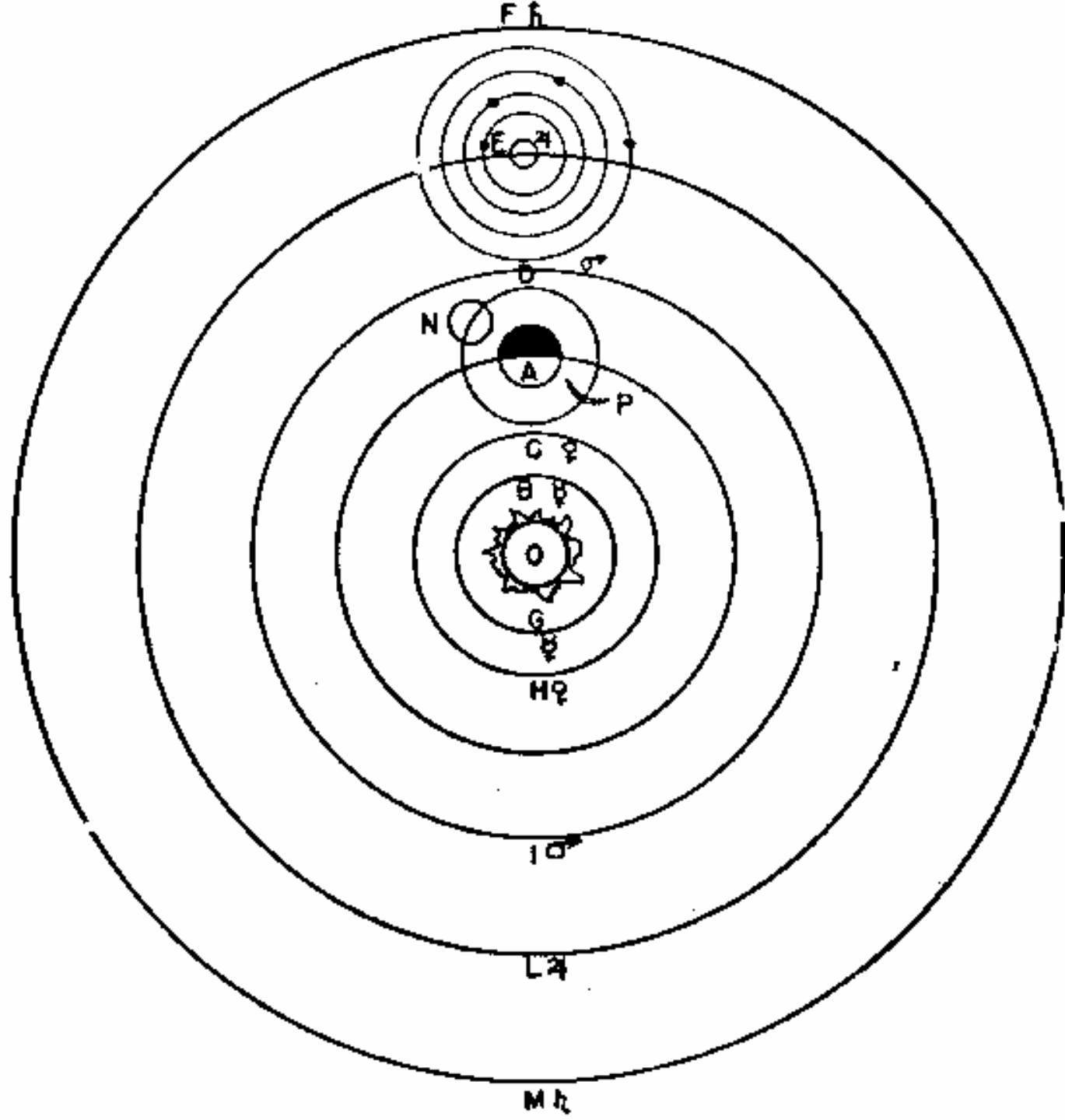
Salviati: Vanessa Tantillo

Sagredo: Talia Gorodess

Simplicio: Jeff Eisenberg

I Fantasmi: Alberto Vallinotto  
Michele Liguori  
Matteo Fasiello





**“The subject of origins will be discussed in a balanced manner if it is discussed at all. I see nothing illiberal about such a requirement, nor can I imagine Gallileo (sic) or Einstein would have found fault with it.”**

*Honorable Thomas Gibbs Gee  
US 5<sup>th</sup> Circuit Court of Appeals  
Minority (5-4) Opinion overturning  
Louisiana Creation Science Law*



**The Trial of Galileo, Robert Fleury, Musée du Louvre**